

**REMARKS**

At the outset, the undersigned thanks Examiner Walke for the courteous personal interview of October 27, 2004. During the interview, the undersigned discussed with the Examiner the proposed interference between the present application and U.S. Patent 6,482,571 ("Teng"), the pending rejection of Claims 16-21 under 35 U.S.C. § 102(e) as allegedly being anticipated by Teng, and the pending rejection of Claims 16 and 18-21 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,569,573 ("Takahashi et al.").

***Claim Rejections under 35 U.S.C. § 102***

Claims 16-21 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Teng. For at least all of the reasons set forth below, the rejection is traversed.

On July 2, 2004, Applicant submitted a certified translation of each of its Japanese priority applications. Those applications include Japanese Application Nos. 2000-006970 filed on January 14, 2000; 2000-016042 filed on January 25, 2000; 2000-018967 filed on January 27, 2000; 2000-018968 filed on January 27, 2000; 2000-102468 filed on April 4, 2000; 2000-102471 filed on April 4, 2000; 2000-102476 filed on April 4, 2000; and 2000-102463 filed on April 4, 2000. Further, each of those applications antedate the September 6, 2000, filing date of Teng, and provide written description support for the pending claims.

To aid the Examiner in reviewing exemplary disclosures which provides written descriptive support for Claims 16-26, Applicant has attached as Appendix A an element-by-

element list of each feature of Claims 16-26, and a representative passage in the translation of Japanese Application No. 2000-102463 filed on April 4, 2000. In view of the exemplary disclosures alone, the rejection should be withdrawn.

Claims 16 and 18-21 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Takahashi et al. For at least all of the reasons set forth below, the rejection is traversed.

Takahashi et al relates to a direct thermosensitive lithographic printing plate for offset and to a plate making process that does not require a developing process. (Column 1, lines 8-11). In contrast to thermosensitive printing plates that require a developing process, it is an object of the Applicant to provide a lithographic printing plate which is prepared without a developing process. (Column 2, lines 19-42).

The presently claimed invention relates to a method of lithographically printing images on a receiving medium. The method includes image exposing a plate with the infrared laser radiation to cause polymerizing and/or crosslinking of the heat-sensitive layer in exposed areas. Thereafter, the exposed plate is placed in contact with ink and/or fountain solution on a lithographic press to remove the heat-sensitive layer in the non-polymerized and/or non-crosslinked areas.

Takahashi et al does not disclose or suggest each of the features of the claimed invention. For example, Takahashi et al relates to a method wherein the object of the invention is to eliminate the need for development. In stark contrast, the present invention includes on-press

development. In fact, the claims specifically recited forming an on-press developable layer and removing the layer in the non-polymerized and/or non-crosslinked areas. Takahashi et al does not and cannot suggest such a method as it does not include or want a development process at all. Accordingly, for at least all of the reasons set forth above, withdrawal of these rejections under 35 U.S.C. § 102(b) is appropriate.

**CONCLUSION**

In the event that there are any questions relating to this Request for Reconsideration and Response Pursuant to 37 C.F.R. § 1.111, or to the application in general, it would be appreciated if the Examiner would telephone the undersigned attorney at (703) 836-6620 concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

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By: 

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Date: October 29, 2004



**APPENDIX A**

| <b>Claim</b>   | <b>Exemplary Support in JP 2000-102463</b>  |
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| <b>16.</b> A method of lithographically printing images on a receiving area, comprising in order:                              | p. 2, ll. 8-12 ("In general, the lithographic printing plate comprises an ink-receptive image area for receiving ink during the printing process and a hydrophilic non-image area for receiving a fountain solution. As the lithographic printing plate precursor...")  |
| (a) providing a lithographic plate comprising  | p. 8, l. 25 – p. 9, l. 2 ("the object of the present invention is to provide a lithographic printing plate...")   |
| (i) support; and   | p. 9, ll. 10-11 ("the lithographic printing plate precursor comprising a hydrophilic support...")   |
| and (ii) a heat-sensitive layer comprising a polymerizable monomer or oligomer,  | p. 11, l. 19 – p. 12, l. 5 ("Examples of the compound having a thermally reactive group... a radical polymerizable compound... a chemical form of, for example, monomer, prepolymer, more specifically, dimer, trimer or oligomer")   |
| an initiator capable of initiating the polymerization of said monomer or oligomer,   | p. 39, ll. 13-14 ("a compound which initiates or accelerates the reaction may be added.")   |
| and an infrared absorbing dye;   | p. 20, l. 20 – p. 21, l. 1 ("The light-to-heat converting material...include...dye. In particular, compounds which absorb infrared light and converts it into heat are preferred.")   |
| wherein said heat-sensitive layer is capable of polymerizing and/or crosslinking upon exposure to an infrared laser radiation, | p. 18, ll. 6-10 ("the compound...causes a chemical reaction, and thereby the molecular structure in the image area of the heat-sensitive layer changes into a three-dimensional crosslinked form."); p. 20, ll. 4-8 ("When a light-to-heat converting material is incorporated into the heat-sensitive layer or a layer adjacent thereto, the lithographic printing plate precursor of the present invention can perform writing of an image by the irradiation of a laser light or the like.") |
| is soluble and on-press developable with ink and/or fountain solution;   | p. 4, ll. 3-7 ("The plate-making system of the printing plate is called on-press development. ... a method of using a photosensitive layer soluble in a fountain solution or an ink solvent")   |

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| (b) image exposing the plate with the infrared laser radiation to cause polymerizing and/or crosslinking of the heat-sensitive layer in the exposed areas; and   | p. 5, l. 20 (“imagewise exposure”); p. 18, ll. 6-10 (“the compound...causes a chemical reaction, and thereby the molecular structure in the image area of the heat-sensitive layer changes into a three-dimensional crosslinked form.”); p. 20, ll. 4-8 (“When a light-to-heat converting material is incorporated into the heat-sensitive layer or a layer adjacent thereto, the lithographic printing plate precursor of the present invention can perform writing of an image by the irradiation of a laser light or the like.”)  |
| (c) contacting said exposed plate with ink and/or fountain solution on a lithographic press to remove the heat-sensitive layer in the non-polymerized and/or non-crosslinked areas,  | p. 7, ll. 18-20 (“fixing the plate on a cylinder of a printing machine and performing on-press development with fountain solution and/or ink”); p. 18, ll. 1-17 (“In the lithographic printing plate precursor of the present invention...the compound...causes a chemical reaction, and thereby the molecular structure in the image area of the heat-sensitive layer changes into a three-dimensional crosslinked form. As a result thereof, the solubility of the image area in water or an aqueous solution greatly differs between before and after the image formation, and good on-press developability can be exhibited.”) |
| and to lithographically print images from said plate to the receiving area.  | p. 2, ll. 8-11 (“the lithographic printing plate comprises an ink-receptive image area for receiving ink during the printing process and a hydrophilic non-image area for receiving a fountain solution”)  |
| 17. The method of claim 16 wherein said heat-sensitive layer further comprises a non-ionic surfactant.   | p. 42, ll. 23-25 (“The composition for the heat-sensitive layer of the present invention may contain a nonionic surfactant...”)  |
| 18. The method of claim 16 wherein said plate is mounted on a plate cylinder of a lithographic press for the image infrared laser exposure, on-press development with ink and/or fountain solution, and lithographic printing. | p. 77, l. 19 – p. 78, l. 3 (“The thus exposed plate is fixed to a cylinder of the printing machine...supplying fountain solution and ink to the printing plate...starting the printing.”)  |
| 19. A method of lithographically printing images on a receiving area, comprising in order:   | p. 2, ll. 8-12 (“In general, the lithographic printing plate comprises an ink-receptive image area for receiving ink during the printing process and a hydrophilic non-image area for receiving a fountain solution. As the lithographic printing plate precursor...”)   |

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| (a) providing a lithographic plate comprising  | p. 8, l. 25 – p. 9, l. 2 (“the object of the present invention is to provide a lithographic printing plate...”)   |
| (i) a support;   | p. 9, ll. 10-11 (“the lithographic printing plate precursor comprising a hydrophilic support...”)   |
| and (ii) a heat-sensitive layer comprising a polymerizable monomer or oligomer,  | p. 11, l. 19 – p. 12, l. 5 (“Examples of the compound having a thermally reactive group... a radical polymerizable compound... a chemical form of, for example, monomer, prepolymer, more specifically, dimer, trimer or oligomer”)   |
| an initiator capable of initiating the polymerization of said monomer or oligomer,   | p. 39, ll. 13-14 (“a compound which initiates or accelerates the reaction may be added.”)   |
| and an infrared absorbing dye or pigment;  | p. 20, l. 20 – p. 21, l. 1 (“The light-to-heat converting material include...dye. In particular, compounds which absorb infrared light and converts it into heat are preferred.”)   |
| wherein said heat-sensitive layer is capable of polymerizing and/or crosslinking upon exposure to an infrared laser radiation,                                 | p. 18, ll. 6-10 (“the compound...causes a chemical reaction, and thereby the molecular structure in the image area of the heat-sensitive layer changes into a three-dimensional crosslinked form.”); p. 20, ll. 4-8 (“When a light-to-heat converting material is incorporated into the heat-sensitive layer or a layer adjacent thereto, the lithographic printing plate precursor of the present invention can perform writing of an image by the irradiation of a laser light or the like.”)                                     |
| is soluble or dispersible in and on-press developable with ink and/or fountain solution;   | p. 4, ll. 3-7 (“The plate-making system of the printing plate is called on-press development. ... a method of using a photosensitive layer soluble in a fountain solution or an ink solvent”)   |
| (b)image exposing the plate with the infrared laser radiation to cause polymerizing and/or cross-linking of the heat-sensitive layer in the exposed areas; and | p. 5, l. 20 (“imagewise exposure”); p. 18, ll. 6-10 (“the compound...causes a chemical reaction, and thereby the molecular structure in the image area of the heat-sensitive layer changes into a three-dimensional crosslinked form.”); p. 20, ll. 4-8 (“When a light-to-heat converting material is incorporated into the heat-sensitive layer or a layer adjacent thereto, the lithographic printing plate precursor of the present invention can perform writing of an image by the irradiation of a laser light or the like.”) |

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| (c) contacting said exposed plate with ink and/or fountain solution on a lithographic press to remove the heat-sensitive layer in the non-polymerized and/or non-cross-linked areas,   | p. 7, ll. 18-20 (“fixing the plate on a cylinder of a printing machine and performing on-press development with fountain solution and/or ink”); p. 18, ll. 1-17 (“In the lithographic printing plate precursor of the present invention...the compound...causes a chemical reaction, and thereby the molecular structure in the image area of the heat-sensitive layer changes into a three-dimensional crosslinked form. As a result thereof, the solubility of the image area in water or an aqueous solution greatly differs between before and after the image formation, and good on-press developability can be exhibited.”) |
| and to lithographically print images from said plate to the receiving area.  | p. 2, ll. 8-11 (“the lithographic printing plate comprises an ink-receptive image area for receiving ink during the printing process and a hydrophilic non-image area for receiving a fountain solution”)  |
| 20. The method of claim 16 wherein said heat-sensitive layer further comprises a nonionic surfactant.  | p. 42, ll. 23-25 (“The composition for the heat-sensitive layer of the present invention may contain a nonionic surfactant...”)  |
| 21. The method of claim 16 wherein said plate is mounted on a plate cylinder of a lithographic press for the image infrared laser exposure, on-press development with ink and/or fountain solution, and lithographic printing. | p. 77, l. 19 – p. 78, l. 3 (“The thus exposed plate is fixed to a cylinder of the printing machine...supplying fountain solution and ink to the printing plate...starting the printing.”)  |
| 22. A method of lithographically printing images on a receiving area, comprising in order:   | p. 8, l. 25 - p. 9, l. 5 (“the object of the present invention is to provide a lithographic printing plate precursor capable of on-press development of forming an image by heat, which can exhibit good on-press developability and ensure printing of a large number of printed matters.”)<br>p. 77, ll. 19-22 (“The thus exposed plate is fixed to a cylinder of the printing machine... Using this fixed plate, the printing can be performed by the following procedures.”)   |
| (a) providing a lithographic plate comprising  | p. 8, l. 25 - p. 9, l. 2 (“the object of the present invention is to provide a lithographic printing plate...”)  |
| (i) support; and   | p. 9, ll. 10-11 (“lithographic printing plate precursor comprising a hydrophilic support...”)  |

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| and (ii) a heat-sensitive layer comprising a polymerizable monomer or oligomer,  | p. 9, ll. 10-15 ("lithographic printing plate precursor comprising a hydrophilic support having thereon a heat-sensitive layer comprising a microcapsule having an outer wall capable of rupturing by heat")<br>p. 11, l. 19 - p. 12, l. 5 ("The compound having an unsaturated group is a radical polymerizable compound... This compound has a chemical form of, for example, monomer, prepolymer, more specifically, dimer, trimer or oligomer")  |
| an initiator capable of initiating the polymerization of said monomer or oligomer,   | p. 39, ll. 14-20 ("...a compound which initiates or accelerates the reaction may be added.")   |
| and an infrared absorbing dye;   | p. 20, l. 21 - p. 21, l. 120 ("The light-to-heat converting material...include...dye. In particular, compounds which absorb infrared light and converts it into heat are preferred.")<br>p. 23, ll. 18-19 ("Examples of the dye which absorbs infrared or near infrared light include ...")  |
| wherein said heat-sensitive layer is capable of polymerizing and/or crosslinking upon exposure to an infrared laser radiation, | p. 18, ll. 6-10 ("the compound contained in the microcapsule is released into the heat-sensitive layer and causes a chemical reaction, and thereby the molecular structure in the image area of the heat-sensitive layer changes into a three-dimensional crosslinked form.")<br>p. 20, ll. 5-9 ("When a light-to-heat converting material is incorporated into the heat-sensitive layer or a layer adjacent thereto, the lithographic printing plate precursor of the present invention can perform writing of an image by the irradiation of a laser light or the like.")<br>p. 40, l. 16-25 ("The heat-sensitive layer of the lithographic printing plate precursor of the present invention may further contain a low molecular compound having a functional group or a protective group thereof, which is capable of reacting with the compound having a thermally reactive group contained in the microcapsule, by heat used from the image formation. ... the effect by the crosslinking")<br>p. 76, l. 24 - p. 77, l. 5 ("The lithographic printing plate precursor of the present invention can form an image by the exposure with a high output laser... In the present invention, a laser of emitting light in the infrared or near infrared region is preferred...") |



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| <p>and is on-press developable with ink and/or fountain solution;</p>   | <p>p. 8, l. 25 - p. 9, l. 5 (“the object of the present invention is to provide a lithographic printing plate precursor capable of on-press development of forming an image by heat, which can exhibit good on-press developability and ensure printing of a large number of printed matters.”)</p> <p>p. 18, ll. 9-13 (“the molecular structure in the image area of the heat-sensitive layer changes into a three-dimensional crosslinked form. As a result thereof, the solubility of the image area in water or an aqueous solution greatly differs between before and after the image formation . . . .”)</p> <p>p. 77, l. 19 - p. 78, l. 3 (“The thus exposed plate is fixed to a cylinder of the printing machine without passing through any processing. Using this fixed plate, the printing can be performed by the following procedures. (1) A method of supplying fountain solution to the printing plate and after the development on the press, further supplying ink to start the printing. (2) A method of supplying fountain solution and ink to the printing plate and after the development on the press, starting the printing. . . .”)</p> <p>p. 78, ll. 7-11 (“the plate may be . . . developed on the press by applying fountain solution and/or ink thereto.”)</p> |
| <p>(b) image exposing the plate with the infrared laser radiation to cause polymerizing and/or crosslinking of the heat-sensitive layer in the exposed areas; and</p> | <p>p. 18, ll. 8-10 (“the molecular structure in the image area of the heat-sensitive layer changes into a three-dimensional crosslinked form. . . .”)</p> <p>p. 20, ll. 5-9 (“When a light-to-heat converting material is incorporated into the heat-sensitive layer or a layer adjacent thereto, the lithographic printing plate precursor of the present invention can perform writing of an image by the irradiation of a laser light or the like.”)</p> <p>p. 40, l. 16-25 (“The heat-sensitive layer of the lithographic printing plate precursor of the present invention may further contain a low molecular compound having a functional group or a protective group thereof, which is capable of reacting with the compound having a thermally reactive group contained in the microcapsule, by heat used from the image formation. . . . the effect by the crosslinking”)</p>  |

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| <p>(c) contacting said exposed plate with ink and/or fountain solution on a lithographic press to remove the heat-sensitive layer in the non-polymerized and/or non-crosslinked areas,</p> | <p>p. 18, ll. 9-13 (“the molecular structure in the image area of the heat-sensitive layer changes into a three-dimensional crosslinked form. As a result thereof, the solubility of the image area in water or an aqueous solution greatly differs between before and after the image formation . . . .”)</p> <p>p. 40, l. 16-25 (“The heat-sensitive layer of the lithographic printing plate precursor of the present invention may further contain a low molecular compound having a functional group or a protective group thereof, which is capable of reacting with the compound having a thermally reactive group contained in the microcapsule, by heat used fro the image formation. . . the effect by the crosslinking”)</p> <p>p. 77, l. 19 - p. 78, l. 3 (“The thus exposed plate is fixed to a cylinder of the printing machine without passing through any processing. Using this fixed plate, the printing can be performed by the following procedures. (1) A method of supplying fountain solution to the printing plate and after the development on the press, further supplying ink to start the printing. (2) A method of supplying fountain solution and ink to the printing plate and after the development on the press, starting the printing. . . .”)</p> |
| <p>and to lithographically print images from said plate to the receiving area.</p>   | <p>p. 8, l. 25 - p. 9, l. 5 (“the object of the present invention is to provide a lithographic printing plate precursor capable of on-press development of forming an image by heat, which can exhibit good on-press developability and ensure printing of a large number of printed matters.”)</p> <p>p. 77, ll. 19-22 (“The thus exposed plate is fixed to a cylinder of the printing machine... Using this fixed plate, the printing can be performed by the following procedures.”)</p>  |

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| <p><b>23.</b> The method of claim 22 wherein said heat-sensitive layer is on-press developable with ink and fountain solution and further wherein said exposed plate is contacted with ink and fountain solution on a lithographic press to remove the heat-sensitive layer in the non-polymerized and/or non-crosslinked areas, and to lithographically print images from said plate to the receiving area.</p>             | <p>p. 77, l. 19 - p. 78, l. 6 (“(1) A method of supplying fountain solution to the printing plate and after the development on the press, further supplying ink to start the printing.<br/>(2) A method of supplying fountain solution and ink to the printing plate and after the development on the press, starting the printing.<br/>(3) A method of supplying ink to the plate and simultaneously with the supply of fountain solution, feeding paper to start printing.”)</p> |
| <p><b>24.</b> The method of claim 16 wherein said heat-sensitive layer is soluble and on-press developable with ink and fountain solution and further wherein said exposed plate is contacted with ink and fountain solution on a lithographic press to remove the heat-sensitive layer in the non-polymerized and/or non-crosslinked areas, and to lithographically print images from said plate to the receiving area.</p> | <p>p. 77, l. 19 - p. 78, l. 6 (“(1) A method of supplying fountain solution to the printing plate and after the development on the press, further supplying ink to start the printing.<br/>(2) A method of supplying fountain solution and ink to the printing plate and after the development on the press, starting the printing.<br/>(3) A method of supplying ink to the plate and simultaneously with the supply of fountain solution, feeding paper to start printing.”)</p> |

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| <p><b>25.</b> The method of claim 19 wherein said heat-sensitive layer is soluble or dispersible and on-press developable with ink and fountain solution and further wherein said exposed plate is contacted with ink and fountain solution on a lithographic press to remove the heat-sensitive layer in the non-polymerized and/or non-crosslinked areas, and to lithographically print images from said plate to the receiving area.</p> | <p>p. 77, l. 19 - p. 78, l. 6 (“(1) A method of supplying fountain solution to the printing plate and after the development on the press, further supplying ink to start the printing.<br/>(2) A method of supplying fountain solution and ink to the printing plate and after the development on the press, starting the printing.<br/>(3) A method of supplying ink to the plate and simultaneously with the supply of fountain solution, feeding paper to start printing.”)</p>       |
| <p><b>26.</b> A method of lithographically printing images on a receiving area, comprising in order:</p>  | <p>p. 8, l. 25 - p. 9, l. 5 (“the object of the present invention is to provide a lithographic printing plate precursor capable of on-press development of forming an image by heat, which can exhibit good on-press developability and ensure printing of a large number of printed matters.”)<br/>p. 77, ll. 19-22 (“The thus exposed plate is fixed to a cylinder of the printing machine... Using this fixed plate, the printing can be performed by the following procedures.”)</p> |
| <p>(a) providing a lithographic plate comprising</p>  | <p>p. 8, l. 25 - p. 9, l. 2 (“the object of the present invention is to provide a lithographic printing plate...”)</p>   |
| <p>(i) an electrochemically roughened,</p>  | <p>p. 55, l. 22 - p. 56, l. 16 (“Thereafter, a so-called graining treatment is performed, where the support surface is roughened so as to attain good adhesion between the support and the heat-sensitive layer and at the same time to impart water receptivity to the non-image area... In addition, an electrochemical graining method ... [is] known.”)</p>  |
| <p>anodized,</p>  | <p>p. 57, l. 24 - p. 58, l. 3 (“In the case of the aluminum support for use in the present invention ... an anodized oxide film is usually formed on the support by anodization so as to improve abrasion resistance, chemical resistance and water receptivity.”)</p>   |

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| and polyvinyl phosphonic acid treated      | p. 61, l. 2 - p. 62, l. 17 ("Also, after the anodization, the support may be treated with a solution containing the following compound or may use the compound as an undercoat layer for the coating of the heat-sensitive layer. Examples of the compound which can be suitably used include . . . water-soluble polymers such as . . . polyvinylphosphonic acid...")   |
| aluminum substrate; and                    | p. 9, ll. 10-11 ("lithographic printing plate precursor comprising a hydrophilic support...")<br>p. 47, ll. 5-11 ("In the lithographic printing plate precursor of the present invention, the hydrophilic support where the heat-sensitive layer can be coated is a plate-like material having good dimensional stability and examples thereof include . . . metal plates (e.g., aluminum, zinc, copper)...")<br>p. 55, ll. 2-11 ("The thus-produced Al plate is subjected to a surface treatment such as roughening of the surface, and then a heat-sensitive layer is coated thereon, thereby producing a lithographic printing plate precursor. The surface roughening treatment is performed using mechanical roughening, chemical roughening and electrochemical roughening individually or in combination. Furthermore, it is preferred to perform an anodization treatment to ensure resistance against scratches on the surface or to perform a treatment for increasing the hydrophilicity.") |
| and (ii) a heat-sensitive layer comprising | p. 9, ll. 10-15 ("lithographic printing plate precursor comprising a hydrophilic support having thereon a heat-sensitive layer comprising a microcapsule having an outer wall capable of rupturing by heat")   |

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| an epoxy;             | <p>p. 10, l. 16 - p.11, l. 1 (“Also, thermally reactive groups capable of thermally reacting with each other may be introduced into two or more kinds of microcapsules to have a structure such that the microcapsules can react with each other. Examples of the reaction using this thermally reactive group include ... an addition reaction of an epoxy group with an amino group...”)</p> <p>p. 11, ll. 7-18 (“The microcapsule containing a compound having the thermally reactive group may be obtained by a method of encapsulating a compound ... having a thermally reactive group such as an acrylate group, a methacrylate group, a vinyl group, an allyl group, an epoxy group, an amino group, a hydroxyl group, a carboxyl group, an isocyanate, an acid anhydride or a protective group thereof, or introducing this compound into the outer wall of a microcapsule.”)</p> |
| a cationic initiator; | p. 39, ll. 14-20 (“... a compound which initiates or accelerates the reaction may be added. Examples thereof include compounds which generate radical or cation by heat, such as lophine dimers, trihalomethyl compounds, peroxides, azo compounds, onium salts containing diazonium salt or diphenyl iodonium salt, acylphosphine and imidosulfonate.”)   |
| carbon black,         | p. 20, ll. 21-24 (“The light-to-heat converting material is not particularly limited as long as it absorbs light in the wavelength region of the light source, and examples thereof include carbon black...”)  |
| ethyl acetate, and    | p. 26, ll. 10-13 (“n the case of encapsulating the dye, in view of the synthesis, a dye soluble in a solvent incapable of mixing with water, more preferably soluble in ethyl acetate is preferred.”)  |
| a solvent;            | p. 43, l. 25 – p. 44, l. 13 (“The lithographic printing plate precursor of the present invention may be produced by dissolving the above-described components necessary for the coating solution for the heat-sensitive layer in a solvent and coating the obtained solution on an appropriate support....”)   |

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| wherein said heat-sensitive layer is capable of polymerizing and/or crosslinking upon exposure to an infrared laser radiation, | <p>p. 18, ll. 6-10 (“the compound contained in the microcapsule is released into the heat-sensitive layer and causes a chemical reaction, and thereby the molecular structure in the image area of the heat-sensitive layer changes into a three-dimensional crosslinked form.”)</p> <p>p. 20, ll. 5-9 (“When a light-to-heat converting material is incorporated into the heat-sensitive layer or a layer adjacent thereto, the lithographic printing plate precursor of the present invention can perform writing of an image by the irradiation of a laser light or the like.”)</p> <p>p. 40, l. 16-25 (“The heat-sensitive layer of the lithographic printing plate precursor of the present invention may further contain a low molecular compound having a functional group or a protective group thereof, which is capable of reacting with the compound having a thermally reactive group contained in the microcapsule, by heat used fro the image formation. ... the effect by the crosslinking”)</p> <p>p. 76, l. 24 - p. 77, l. 5 (“The lithographic printing plate precursor of the present invention can form an image by the exposure with a high output laser... In the present invention, a laser of emitting light in the infrared or near infrared region is preferred...”)</p> |
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| and is on-press developable with ink and/or fountain solution;   | <p>p. 8, l. 25 - p. 9, l. 5 ("the object of the present invention is to provide a lithographic printing plate precursor capable of on-press development of forming an image by heat, which can exhibit good on-press developability and ensure printing of a large number of printed matters.")</p> <p>p. 18, ll. 9-13 ("the molecular structure in the image area of the heat-sensitive layer changes into a three-dimensional crosslinked form. As a result thereof, the solubility of the image area in water or an aqueous solution greatly differs between before and after the image formation . . .")</p> <p>p. 77, l. 19 - p. 78, l. 3 ("The thus exposed plate is fixed to a cylinder of the printing machine without passing through any processing. Using this fixed plate, the printing can be performed by the following procedures. (1) A method of supplying fountain solution to the printing plate and after the development on the press, further supplying ink to start the printing. (2) A method of supplying fountain solution and ink to the printing plate and after the development on the press, starting the printing. ...")</p> <p>p. 78, ll. 7-11 ("the plate may be ... developed on the press by applying fountain solution and/or ink thereto.")</p> |
| (b) image exposing the plate with the infrared laser radiation to cause polymerizing and/or crosslinking of the heat-sensitive layer in the exposed areas; and | <p>p. 20, ll. 5-9 ("When a light-to-heat converting material is incorporated into the heat-sensitive layer or a layer adjacent thereto, the lithographic printing plate precursor of the present invention can perform writing of an image by the irradiation of a laser light or the like.")</p> <p>p. 40, l. 16-25 ("The heat-sensitive layer of the lithographic printing plate precursor of the present invention may further contain a low molecular compound having a functional group or a protective group thereof, which is capable of reacting with the compound having a thermally reactive group contained in the microcapsule, by heat used for the image formation. ... the effect by the crosslinking")</p>   |



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| <p>(c) contacting said exposed plate with ink and/or fountain solution on a lithographic press to remove the heat-sensitive layer in the non-polymerized and/or non-crosslinked areas,</p> | <p>p. 18, ll. 9-13 (“the molecular structure in the image area of the heat-sensitive layer changes into a three-dimensional crosslinked form. As a result thereof, the solubility of the image area in water or an aqueous solution greatly differs between before and after the image formation . . . .”)</p> <p>p. 40, l. 16-25 (“The heat-sensitive layer of the lithographic printing plate precursor of the present invention may further contain a low molecular compound having a functional group or a protective group thereof, which is capable of reacting with the compound having a thermally reactive group contained in the microcapsule, by heat used fro the image formation. . . the effect by the crosslinking”)</p> <p>p. 77, l. 19 - p. 78, l. 3 (“The thus exposed plate is fixed to a cylinder of the printing machine without passing through any processing. Using this fixed plate, the printing can be performed by the following procedures. (1) A method of supplying fountain solution to the printing plate and after the development on the press, further supplying ink to start the printing. (2) A method of supplying fountain solution and ink to the printing plate and after the development on the press, starting the printing. ...”)</p> |
| <p>and to lithographically print images from said plate to the receiving area.</p>   | <p>p. 8, l. 25 - p. 9, l. 5 (“the object of the present invention is to provide a lithographic printing plate precursor capable of on-press development of forming an image by heat, which can exhibit good on-press developability and ensure printing of a large number of printed matters.”)</p> <p>p. 77, ll. 19-22 (“The thus exposed plate is fixed to a cylinder of the printing machine... Using this fixed plate, the printing can be performed by the following procedures.”)</p>  |